

helped establish both laboratories. Thus, well before the Rockefeller group, Caspersson had a well-funded laboratory dedicated to cell research.

Caspersson tended to have more of an interest in the development of instruments than in the biological research that they made possible. When he obtained his own laboratory space, a workshop for building instruments was a major component. Discussion of refinement of instruments typically appeared ahead of experimental results in Caspersson's annual reports to the Rockefeller Foundation.¹⁰ While working under Hammarsten, he developed methods for ultraviolet spectrography that involved combining a spectroscope and a microscope with a quartz lens. Relying on the fact that the pyrimidines in nucleic acids strongly absorb light at 2600 Å, he was able to estimate nucleic acid content in different parts of living cells. In 1938, in awarding a further grant to Hammarsten, the Rockefeller Foundation took note of this equipment: "The equipment as it now stands is the result of accretions and modifications made as new needs and possibilities were uncovered. In a certain sense the equipment is relatively crude, although it is substantial enough to indicate the limits and possibilities of this type of analysis."¹¹ In applying for that support, Hammarsten described Caspersson's photoelectric apparatus for ultraviolet-microspectrography (letter to W. E. Tisdale, February 23, 1938):¹²

Having passed the living cells the light is concentrated in the microscope with an iris and a quartz-prism over the ocular. By means of fluorescent glass and mirrors it is possible to get an orientation in the light-bundle, and by movements of

¹⁰ In a report on December 9, 1953, Caspersson described the division between instrument development and biological research: "the work in the institute has been carefully divided so that half the resources were devoted to developmental work on the side of the instruments and the other half to work on biological problems with the intracellular regulation of protein synthesis as key note. This arrangement has always very strictly been carried through, in spite of the fact that it has often been evident that the biological work on short sight would have benefited from a larger share of the efforts, that would undoubtedly also have made the work more easy to manage financially. The reason for this politics [sic] was that the biophysical techniques in question are the primary condition for the work, and furthermore they represent in my personal view one of the ways, which has to be gone sooner or later if we will ever get close to the basic problems of gene reproduction and gene function and thus a quite general approach from the beginning should prove the most fruitful at the end" (Folder: Karolinska Institutet Cell Research 1953, Series 800D, RG 2, Rockefeller Foundation Archives, RAC).

¹¹ Folder 5, Box 1, Series 800D, RG 1.1, Rockefeller Foundation Archives, RAC.

¹² Folder 1, Box 7, Series 800D, RG 1.1, Rockefeller Foundation, RAC. Plans were already in place for Caspersson to be a Rockefeller Foundation fellow with Lewis. These were initially postponed because Jack Schultz (then a postdoctoral fellow at the California Institute of Technology under T. H. Morgan) went to Stockholm to work with Caspersson. The outbreak of World War II then prevented Caspersson's travel to the United States; the Rockefeller Foundation provided Caspersson grants-in-aid throughout the war.